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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,184	02/20/2004	George Shevchuk	4024-4063	6194
27123	7590	01/25/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			PETKOVSEK, DANIEL J	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/783,184	SHEVCHUK, GEORGE	
	Examiner	Art Unit	
	Daniel J Petkovsek	2874	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on continuation filed February 20, 2004.
- 2a) ☐ This action is FINAL.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This application is a continuation of US 10/098,943, filed March 15, 2002, now abandoned. The pre-amendment filed May 5, 2004 has amended claims 1, 13, and 17, and added new claims 20-28. Claims 1-28 are currently pending.

#### ***Drawings***

1. The drawings are objected to because informal hand-drawn components (for example Fig. 1 among others). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

2. Claims 1, 5, 6, 10, and 27 are objected to because of the following informalities: regarding claim 1, in line 5, "gooves" should read "grooves", and in the final lines, "... ferrule

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plates with the optical fibers are disposed ..." does not read correctly. Regarding claims 5 and 6, these claims are viewed as redundant claims, since this subject material has been amended into independent claim 1. Regarding claim 10, the claim should be dependent upon claim 9, not claim 1. Regarding claim 27, "The method o" should read, "The method of". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahid U.S.P. No. 6,352,372, and further in view of Uno et al. U.S.P. No. 6,240,235, and further in view of Chande et al. U.S.P. No. 4,744,627.

Shahid U.S.P. No. 6,352,372 teaches (Figs. 1, 2, and 9, column 2, lines 10-25, column 7, lines 45-60) an assembly 20 (and inherent method (claims 13-19, and 24-28) of making same using molding properties) for stacking and retaining a plurality of optical fibers with their ends aligned in a 2-D array, the assembly comprising: an aligned stack of a plurality of ferrule plates, each ferrule plate having a pair of parallel major surfaces, one of the surfaces having v-grooves, the other surface being substantially flat, in which the ferrule plates are stacked on top of each other as such the optical fibers are disposed in the grooves between consecutive ferrule plates.

Shahid '372 does not explicitly teach that the fibers are disposed between a first surface having grooves, and a second surface having a substantially flat surface.

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Uno et al. U.S.P. No. 6,240,235 teaches (Figs. 13-15) a plurality of fibers 95 disposed between ferrule plates in which the first surface has v-grooves 91, while the second surface is substantially flat.

Since Shahid '372 and Uno et al. '235 are both from the same field of endeavor, the purpose disclosed by Uno et al. '235 would have been recognized in the pertinent art of Shahid '372.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Shahid '372 by using a flat surface to clasp/clamp the optical fiber, as taught by Uno et al. '235, for the purpose of creating an optical assembly that decreases the amount of processing steps (creates less v-groove channels) for the purpose of decreasing cost and increasing efficiency of manufacture.

Shahid '372 does not explicitly teach that the adjacent ferrule plates are maintained in alignment using alignment pins that pass through alignment holes. Shahid '372 teaches alignment members 62 and alignment recesses 64 (see Fig. 2) that maintain proper alignment in the optical assembly. Shahid '372 suggests that alignment holes and pins are well-known in the art (see column 2, lines 10-26), but goes as far as saying that these pins that would traverse through the entire ferrule plate are actually very poor tools as far as the efficiency and utility of the interconnection density is concerned. Although Shahid '372 teaches away from using alignment through-pins for the reasons given, this modification is NOT viewed as a novel and/or unobvious change to the prior art.

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Chande et al. 4,744,627 (circa 1988) teaches (Figs. 1, 6, and 7) an optical assembly that clamps optical fibers between plates in order to align and maintain positioning. Chande et al. '627 also teaches alignment screws, with a corresponding alignment hole that passes through each of the plurality of plates, in order to improve alignment efficiency.

Since Shahid '372 and Chande et al. '627 are both from the same field of endeavor, the purpose disclosed by Chande et al. '627 would have been recognized by the pertinent art of Shahid '372.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a structure in which alignment was created using a pin (screw) and through hole for the purpose of alignment, in particular when the pins can be taken out and adjusted. Although it is taught by Shahid '372 that this form of alignment may be outdated and less efficient as optical device become smaller and smaller, this modification to Shahid '372 is not viewed as a novel or useful (in the progression of science and technology) in the optical fiber art.

Regarding claims 2, 3, 21, and 22, the grooves are adjacent and parallel in Shahid '372.

Regarding claims 4 and 23, each ferrule plate is substantially identical.

Regarding claims 5 and 6, see the combination rejections above for the holes and alignment pins. (Please note that these claims are viewed as redundant in view of the pre-amendment filed May 5, 2004).

Regarding claims 7, 11, and 12, although these values are not explicitly disclosed by the prior art, these values are in the general range in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to find general ranges to

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improve optical performance, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. If the Applicant feels that any of these ranges come as an unexpected result, it is requested that this is stated on the record with the reasoning and proof that these results were unexpected.

Regarding claims 8-10, Shahid '372 teaches fiber termination/connection and mating arrangements.

### ***Response to Arguments***

5. Applicant's arguments filed May 5, 2004, have been fully considered but they are not persuasive. The arguments assert that these changes (as amended) would not be obvious over the prior art. No persuasive arguments are stated by the Applicant as to why using an alignment pin and hole would be a patentable distinction over the prior art. Alignment pins and holes having been used for many years in the art, and this modification alone is not a novel or unobvious one.

### ***Conclusion***


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of optical assemblies using ferrule plates: PTO-892 form references D-H.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel Petkovsek  
January 21, 2005

  
AKM ENAYET ULLAH  
PRIMARY EXAMINER